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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/359,083
Filing Date: July 22, 1999
Appellant(s): DAVIS ET AL.

Rupak Nag
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 13, 2009 and November 12, 2009
appealing from the Office action mailed May 8, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

Examiner notes that the amendments filed in response to the Final Rejection were entered, as noted above, and the amendments overcame the 112 rejection. Therefore, only the rejections under 102 stand.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US Patent 6,282,522 B1 to Davis et al.

(9) Grounds of Rejection

Examiner notes that the amendments filed in response to the Final Rejection were entered, as noted above, and the amendments overcame the 112 rejection. Therefore, only the rejections under 102 stand.

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8, and 34-49 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,282,522 B1 to Davis et al (further referred to as Davis).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Davis discloses an on-line purchase and load (OPAL) server computer for performing a purchase transaction over a network (column 6, lines 18-26) using a virtual smart card (column 11, lines 1-14), said OPAL server computer comprising:

a virtual card database having a plurality of records (column 10, lines 60-63), each record including a virtual smart card identifier and a monetary balance corresponding to a single smart card (column 11, lines 20-26 and lines 60-67; column 13, lines 3-6; column 16, lines 6-10 and lines 25-34);

a hardware security module arranged to decrypt said monetary balance, to decrease said monetary balance, and to encrypt said decreased monetary balance (column 8, lines 22-25; column 10, lines 54-58; column 11, lines 48-67; column 22, line 56 – column 24, line 51);

a smart card emulator that receives smart card commands from a pseudo card reader module and processes said commands in conjunction with said virtual smart card database and said hardware security module, said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module and to store said encrypted

decreased monetary balance received from said hardware security module in said retrieved record (column 4, lines 3-5; column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57; column 14, lines 55-58; column 16, lines 22-38);

said pseudo card reader module that receives said smart card commands related to said purchase transaction over said network and relays said commands to said smart card emulator, whereby said OPAL server computer performs said purchase transaction over said network using one of said records in said virtual smart card database (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57).

Regarding claim 2, Davis discloses an OPAL server wherein the virtual card database further includes purchase algorithm identifiers (column 17, lines 52-56), and wherein the hardware security module includes a plurality of purchase algorithms that are identified for use by one of said purchase algorithm identifiers, said hardware security module is arranged to decrypt said monetary balance using one of said purchase algorithms identified by one of said purchase algorithm identifiers (column 22, line 56 – column 24, line 51).

Regarding claim 3, Davis discloses an OPAL server further comprising a user verification module that verifies a user accessing the OPAL server and generates a user

identifier, the user identifier being suitable to identify one of the virtual smart card records in the card database (column 11, lines 39-47; column 16, lines 52-64).

Regarding claim 4, Davis discloses an OPAL server wherein the smart card emulator and pseudo card reader module are implemented as a single software module (column 12, lines 1-60; column 24, lines 54-60).

Regarding claim 5, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server communicates with a merchant server and a payment server to transact said purchase transaction (column 1, lines 12-16 and column 6, lines 18-65).

Regarding claim 6, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server (Figure 3; column 5, lines 30-38; column 11, lines 1-15) communicates with a bank server and a load server to load value onto the virtual smart card (Figure 10; column 3, lines 21-26; column 5, lines 32-34; column 8, lines 64-66; column 11, lines 1-6).

Regarding claim 7, Davis discloses an OPAL server wherein the network is an internet over which the OPAL server communicates with a web server and an authentication server to authenticate a user (column 13, lines 32-35 and column 26, lines 18-50).

Regarding claim 8, Davis discloses an OPAL server wherein the OPAL server communicates over the network with a payment gateway for funding account authorization and clearing (column 10, lines 27-65).

Regarding claim 34, Davis discloses an OPAL server wherein the smart card emulator is suitable for returning said record to the virtual smart card database (column 6, lines 40-42; column 7, lines 26-31; column 11, lines 48-67; column 13, lines 3-10; column 14, lines 8-12; column 16, lines 22-38).

Regarding claim 35, Davis discloses an OPAL wherein each record of the virtual smart card database also includes a funding account number wherein the funding account number identifies an account that contains a monetary amount that can be loaded onto a virtual smart card (column 2, lines 24-42).

Regarding claim 36, Davis discloses an OPAL server wherein the OPAL server is further configured to receive a purchase request message from a client terminal, wherein the purchase request message indicates a good or service to be purchased by a user, a user identifier, and a user password (column 4, lines 3-5; column 9, lines 3-10; column 13, line 63 – column 14, line 3).

Regarding claim 37, Davis discloses an OPAL server wherein the OPAL server is further configured to send a draw message request to a payment server, wherein the draw request message indicates an amount of money required to purchase the good or service and a merchant identifier (column 16, lines 22-38).

Regarding claim 38, Davis discloses an OPAL server wherein the OPAL server is further configured to receive a debit command from the payment server, wherein the debit command indicates an amount of money to debit from a respective virtual smart card (column 15, lines 22-28 and lines 37-55; column 19, lines 54-60).

Regarding claim 39, Davis discloses an OPAL server wherein the smart card emulator is configured to debit itself in response to the debit command by the amount of money indicated in the debit command (column 21, lines 38-41 and Figure 11A).

Regarding claim 40, Davis discloses an OPAL server wherein the OPAL server is further configured to send a debit response message to the client terminal, wherein the debit response message informs the user either that the amount of money has been debited from the smart card emulator (column 14, lines 56-58) or that money has not been debited from the smart card emulator due to a lack of sufficient funds (column 16, lines 10-12; column 17, lines 31-34).

Regarding claim 41, Davis discloses an on-line purchase and load (OPAL) server computer for performing a load transaction over a network (column 6, lines 18-26) using a virtual smart card (column 11, lines 1-14), said OPAL comprising:

a virtual card database having a plurality of records (column 10, lines 60-63), each record including a virtual smart card identifier and a monetary balance corresponding to a single smart card (column 11, lines 20-26 and lines 60-67; column 13, lines 3-6; column 16, lines 6-10 and lines 25-34);

a hardware security module arranged to decrypt said monetary balance, to increase said monetary balance, and to encrypt said increased monetary balance (column 3, lines 19-25; column 8, lines 22-25; column 10, lines 54-58; column 11, lines 4-6 and lines 48-67; column 14, lines 31-32; column 22, line 56 – column 24, line 51);

a smart card emulator that receives smart card commands and processes said commands in conjunction with said virtual smart card database and said hardware security module (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57); the smart card emulator also configured to send a load request message to a load server, wherein the load request message indicates a virtual smart card identifier and a load amount for a respective virtual smart card, the load amount indicating an amount of money to load onto the respective virtual smart card (column 2, lines 24-42; column 3, lines 21-26; column 5, lines 32-34; column 8, lines 64-66, column 11, lines 1-6); said smart card emulator arranged to retrieve one of said records from said virtual smart card database, and to deliver said monetary balance to said hardware security module and to store said encrypted increased monetary balance

received from said hardware security module in said retrieved record (column 4, lines 3-5; column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57; column 14, lines 55-58; column 16, lines 22-38); and

a pseudo card reader module that receives said smart card commands related to load transaction over said network and relays said commands to said smart card emulator, whereby said OPAL server performs said load transaction over said network using one of said records in said virtual smart card database (column 7, lines 6-21; column 8, lines 22-24; column 10, lines 50-65; and column 11, lines 48-57).

Regarding claim 42, Davis discloses an OPAL server wherein the OPAL server is configured to receive a load command from a load server wherein the amount of money indicated in the load request message is loaded onto the respective virtual smart card (Figures 3 and 10; column 2, lines 24-42; column 3, lines 21-26; column 5, lines 30-38; column 8, lines 64-66; column 11, lines 1-15).

Regarding claim 43, Davis discloses an OPAL server wherein the smart card emulator is configured to send a load response message to a client terminal, wherein the load response message informs a user that the amount of money has been loaded onto the respective virtual smart card (column 2, lines 24-42; column 5, lines 32-34; column 7, lines 6-14; column 11, lines 1-6; column 28, lines 16-26).

Regarding claims 44-49, Davis discloses a memory arranged to store said virtual smart card database, said smart card emulator, and said pseudo card reader module and wherein the hardware security module is a hardware device in said OPAL server computer and a security box attachable to said server computer (Figure 17; column 13, lines 32-35; column 27, line 10 – column 28, line 26).

(10) Response to Argument

The Appellant's arguments have been considered but are not persuasive.

Appellant argues the enabling of the Davis reference for use of a virtual smart card. Examiner has cited in the previous Office Actions that Davis discloses where the David patent discloses the use and functionality supporting use of a virtual smart card. In the absence of any evidence to the contrary, Examiner continues to maintain that the reference discloses and enables that a virtual smart card can be used. Davis particularly discloses "Further, the functionality of stored-value card 5 may be implemented in software on client terminal 204, that is card 5 may be a "virtual" card." While the Davis disclosure focuses on transactions using a physical stored-value card, Davis specifically discloses in the just-cited portion that the functionality of a stored-value card as a virtual card is provided for, not just that hypothetically a stored-value card could be a virtual card. Davis discloses that the system as disclosed can be used functionally to support the use of a virtual card.

Appellant argues that Davis does not disclose a "smart card emulator", a "pseudo card reader module" or a "virtual smart card database". While Davis does not use these exact terms, the "virtual smart card database", "smart card emulator" and "pseudo card reader module" are operable to store data, receive smart card commands for processing and to receive smart card commands to forward to the smart card emulator respectively. Davis discloses where these operations are performed for a physical stored-value card, and as stated above, Davis discloses where the software is able to support a virtual card. The operation of storing, receiving and processing data, be it from a physical or virtual data, is provided for. Whether card data is gathered from sliding a magnetic strip, or electronically sensed from a card touched to a reader, or collected from keyboard input, the data in each case is collected and processed for affecting transactions using the account which is supported by the account number, whether the account number has associated therewith a physical card or not.

Given the functionality of the "virtual smart card database", "smart card emulator" and the "pseudo card reader module" as disclosed in the present application, these features are used for storing data, receiving, relaying and processing card commands in order to affect a transaction. The steps of storing data, receiving, relaying and processing card commands are disclosed in the Davis disclosure. Davis further specifically discloses where the operations can be conducted using a physical card or a virtual card.

Examiner further contends that the analysis as provided for in both the Final Office Action and the advisory action are correct. If the Davis reference were to merely

reference the use of a virtual smart, then examiner would agree that the analysis would have been in error. However, the reference specifically discloses that the functionality of the virtual card is provided for. Therefore, the Davis reference not only suggests that a virtual card might be used, hypothetically, but states that the system and method as set forth is operable for either a physical card or a virtual card. While the specific reference to the virtual card is contained in only one location within the Davis reference, that portion clearly states that operability is afforded to either a physical or virtual card. And, accordingly, the components have operability for either being a physical card database or a virtual card database, etc.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jennifer Liversedge/

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